EXHIBIT X

FILED UNDER SEAL

Case 3:20-cv-06754-WHA Document 474-11 Filed 02/03/23 Page 2 of 7

HIGHLY CONFIDENTIAL—ATTORNEYS' EYES ONLY

melissabaily@quinnemanuel.com James Judah (Bar No. 257112) jamesjudah@quinnemanuel.com Lindsay Cooper (Bar No. 287125) lindsaycooper@quinnemanuel.com 50 California Street, 22nd Floor San Francisco, California 94111 Telephone: (415) 875-6600 Facsimile: (415) 875-6700 Marc Kaplan (pro hac vice) marckaplan@quinnemanuel.com 191 N. Wacker Drive, Ste 2700 Chicago, Illinois 60606 Telephone: (312) 705-7400 Facsimile: (312) 705-7401 Attorneys for Google LLC	DISTRICT COURT
UNITED STATES DISTRICT COURT	
NORTHERN DISTRICT OF CALIFORNIA	
SAN FRANCISCO DIVISION	
GOOGLE LLC,	CASE NO. 3:20-cv-06754-WHA Related to CASE NO. 3:21-cv-07559-WHA
Plaintiff,	GOOGLE LLC'S SUPPLEMENTAL
vs.	RESPONSIVE DAMAGES
SONOS, INC.,	CONTENTIONS PURSUANT TO PATENT LOCAL RULE 3-9
Defendant.	
GOOGLE'S SUPPLEMENTAL RESPONSI	Case No. 3:20-cv-06754-WHA VE DAMAGES CONTENTIONS PURSUANT TO P.L.R. 3-9
	James Judah (Bar No. 257112) jamesjudah @quinnemanuel.com Lindsay Cooper (Bar No. 287125) lindsaycooper @quinnemanuel.com 50 California Street, 22nd Floor San Francisco, California 94111 Telephone: (415) 875-6600 Facsimile: (415) 875-6700 Marc Kaplan (pro hac vice) marckaplan @quinnemanuel.com 191 N. Wacker Drive, Ste 2700 Chicago, Illinois 60606 Telephone: (312) 705-7400 Facsimile: (312) 705-7401 Attorneys for Google LLC UNITED STATES NORTHERN DISTR SAN FRANCI GOOGLE LLC, Plaintiff, vs. SONOS, INC., Defendant.

HIGHLY CONFIDENTIAL—ATTORNEYS' EYES ONLY

Invalidity of Claim 13 of U.S. Patent No. 9,967,615 and Other Issues, § XI, and the deposition testimony of Dr. Schonfeld and Dr. Bhattacharjee. Google has shown that these technically and commercially acceptable non-infringing alternatives existed at the time of the hypothetical negotiation in this case. Google has also provided evidence and expert testimony confirming that:
(i) the materials and personnel needed to implement the non-infringing alternative were readily available; (ii) the non-infringing alternative was well known in the field at the time of infringement; and/or (iii) all of the necessary equipment, know-how, and experience to use the non-infringing alternatives were available at the time of first alleged infringement.³⁹

The fact that a non-infringing alternative has not been implemented does not mean that option is not feasible or not acceptable. Licensees or alleged infringers do not simply switch to existing alternatives or develop new available alternatives each and every time they are accused of infringement. To do so any time there is disagreement about validity, enforceability, and infringement of a patent would be unreasonable and disruptive. The decision not to switch to an alternative is not, by itself, evidence that such a switch was not possible or would not have occurred. In addition to the exemplary non-infringing alternatives to the '885 and '966 patents at the time of the hypothetical negotiation, Google also had several technically and commercially acceptable non-infringing alternatives to the '033 patent at the time of the hypothetical negotiation. Examples include:

- Playback of a local queue on the sender device, such that the sender device can queue a data structure that stores the list of videos selected for playback and the sender device would play videos directly from that queue—and thus not from a "remote playback queue provided by a cloud-based computing system associated with a cloud-based media service." Google estimates that this modification would have required three software engineers working for approximately less than three months to implement, as well as additional time to conduct QA testing. 40 Google expects that end users would have found this alternative acceptable as the change to playback from a local queue would not be discernible to a user and would not impact the YouTube experience.
- Continuing playback on a control device after a user transfers playback to a receiver device rather than stopping it. Without any external pressures, Google

³⁹ LaserDynamics, Inc. v. Quanta Computer, Inc., No. 2:06–CV–348, 2011 WL 197869, *3 (E.D. Tex. 2011) (citing Grain Processing Corp., 185 F.3d at 1353-54).

⁴⁰ In 2020 the annual Google compensation cost for an individual Engineer in the San Francisco Bay Area was between \$199,000 and \$741,000 depending on level (with levels ranging between L2 and L7).

HIGHLY CONFIDENTIAL—ATTORNEYS' EYES ONLY

estimates that this design change would take 2-3 software engineers working fulltime for approximately a few weeks to complete, as well as additional time to conduct QA testing. Google also expects that this design change would be acceptable to end users given that the user would have the benefit of viewing the video both on their phone and on the television or of continuing to listen to music on the mobile device if they move to a different room.

Cloud service, not playback device, communicates with cloud servers to identify the next one or more media items in the remote playback queue,

Google
estimates that this design change would take up to five software engineers working full-time approximately one year to complete, as well as additional time to conduct

full-time approximately one year to complete, as well as additional time to conduct QA testing. Google also expects that this design change would be acceptable, and perhaps even preferable, to end users given that it may lead to material efficiencies in terms of latency.

Of course, Google could complete this design change more quickly if needed, for example by adding more engineers to the team working on the change, which would in turn compress the schedule. Google also expects that these design changes would not incur any additional hardware or server costs.

Google does not believe that it infringes the '033 patent or that the '033 patent is valid. Under the hypothetical negotiation construct, where validity and infringement of the '033 patent is assumed, the timeframe to implement the foregoing non-infringing alternatives would be shorter. On an *ex ante* (*i.e.*, forward looking) basis, which is the purpose of the hypothetical negotiation construct, it would take lesser time to implement these non-infringing alternatives.⁴¹

Sonos also continues to disregard that Google had several technically and commercially acceptable non-infringing alternatives to the '885 and '966 patents at the time of the hypothetical negotiation. Examples include:

- The accused Google products are themselves non-infringing alternatives to all the Asserted Claims.
- When the accused "standalone" speaker is added to a target group, and it matches

The overriding principle is the importance of evaluating a decision to commit to a technology on an ex ante (*i.e.*, before the event) basis over the next-best alternatives that were available at the time. This is an analytical tool that helps avoid what is often referred to as "lock in" or "patent hold up." *See* Daniel G. Swanson, & William J. Baumol, *Reasonable and Nondiscriminatory (RAND) Royalties, Standards Selection, and Control of Market Power*, 73 ANTITRUST L. J. 10 (2005); Joseph Farrell, et al., *Standard Setting, Patents, and Hold-Up*, 74 ANTITRUST L. J. 610 (2007); Joseph S. Miller, *Standard Setting, Patents and Access Lock-In: RAND Licensing and Theory of the Firm*, 40 INDIANA L. REV. 351, 358 (2007); *Commonwealth Sci. & Indus. Rsch. Organisation*, 809 F.3d at 1302.

Case 3:20-cv-06754-WHA Document 474-11 Filed 02/03/23 Page 5 of 7

HIGHLY CONFIDENTIAL—ATTORNEYS' EYES ONLY

the music (or silence) of the target group.

• A speaker that is already a member of one group will be forced out of this (first) group when a user attempts to add the speaker to a new (second) group. No speaker can be a member of more than one group at the same time.

Google also expects that these design changes would not incur any additional hardware costs. Google estimates that these design changes would take one engineer approximately one day to implement. as well as additional time to conduct QA testing. In

Damages Contentions pursuant to Patent Local Rule 3-9 or Google's response to Sonos's Interrogatory No. 18," but this is incorrect. Google's February 25, 2022 Responsive Damages Contentions specifically disclosed this specific NIA:

Indeed, Sonos disregards that Google had technically and commercially acceptable non-infringing alternatives to the '885 and '966 patents at the time of the hypothetical negotiation. As just one example, when a speaker is added to a new group, Google could stop the current playback on the added speaker. Google estimates that this design change would take one engineer approximately one day to implement.

Google LLC's Responsive Damages Contentions Pursuant to Patent Local Rule 3-9 at 10. In addition, Google has provided a supplemental response to Sonos's Interrogatory No. 18.

Sonos asserts that this NIA would not be commercially acceptable because it would "dramatically degrade the user experience." Sonos's Second Supplemental Damages Disclosures at 36. First, Sonos fails to provide any surveys, studies, or quantitative analysis showing that the claimed features drive demand for the accused products, and that without them, Google' customers would have found the non-infringing alternative to be unacceptable. Instead, the NIA would improve the user experience because it would conform to a user's expectation that a speaker joining a group would match the music or silence of the group.

Sonos's examples of degradation in the user experience are illogical. If a user did not want to wake up a sleeping baby with music in a different area of the house, he or she would not add a

Case 3:20-cv-06754-WHA Document 474-11 Filed 02/03/23 Page 6 of 7

HIGHLY CONFIDENTIAL—ATTORNEYS' EYES ONLY

1	of the CIA, including because,	
2	Moreover, there was no gross negligence, willful	
3	misconduct, breach of confidentiality, or willful misappropriation on Google's part. Accordingly,	
4	Google contends that any recovery for the purported infringement of the '033 patent is limited to	
5	5 \$10,000. Sonos fails to take this into consideration or discuss this issue at all.	
6	II. IDENTIFICATION OF ADDITIONAL INFORMATION REQUIRED	
7	Pursuant to Patent L.R. 3-9, Google identifies the following information and discovery	
8	8 required from Sonos to provide a fulsome response to Sonos's Second Supplemental Damages	
9	9 Disclosures, to the extent this evidence is not already precluded by Sonos's failure to identify it in	
10	the damages contentions:	
11	Any valuations or related evidence of the patents-in-suit;	
12	Documents regarding the incremental value or demand for the technology claimed by	
13	the patents-in-suit; and	
14	Expert reports and testimony.	
15 16	DATED: November 30, 2022 QUINN EMANUEL URQUHART & SULLIVAN, LLP	
17	By:/s/ Charles K. Verhoeven	
18	Charles K. Verhoeven (Bar No. 170151) charlesverhoeven@quinnemanuel.com	
19	Melissa Baily (Bar No. 237649) melissabaily@quinnemanuel.com	
20	James Judah (Bar No. 257112) jamesjudah@quinnemanuel.com	
21	Lindsay Cooper (Bar No. 287125) lindsaycooper@quinnemanuel.com	
22	50 California Street, 22nd Floor San Francisco, California 94111-4788	
23	Telephone: (415) 875-6600 Facsimile: (415) 875-6700	
24	Marc Kaplan (pro hac vice)	
25	marckaplan@quinnemanuel.com 191 N. Wacker Drive, Ste 2700	
26	Chicago, Illinois 60606 Telephone: (312) 705-7400	
27	Facsimile: (312) 705-7401	
28	Attorneys for GOOGLE LLC	

Case 3:20-cv-06754-WHA Document 474-11 Filed 02/03/23 Page 7 of 7

HIGHLY CONFIDENTIAL—ATTORNEYS' EYES ONLY

CERTIFICATE OF SERVICE

The undersigned hereby certifies that all counsel of record who have consented to electronic service are being served with a copy of this document via email on November 30, 2022.

/s/ Jocelyn Ma Jocelyn Ma